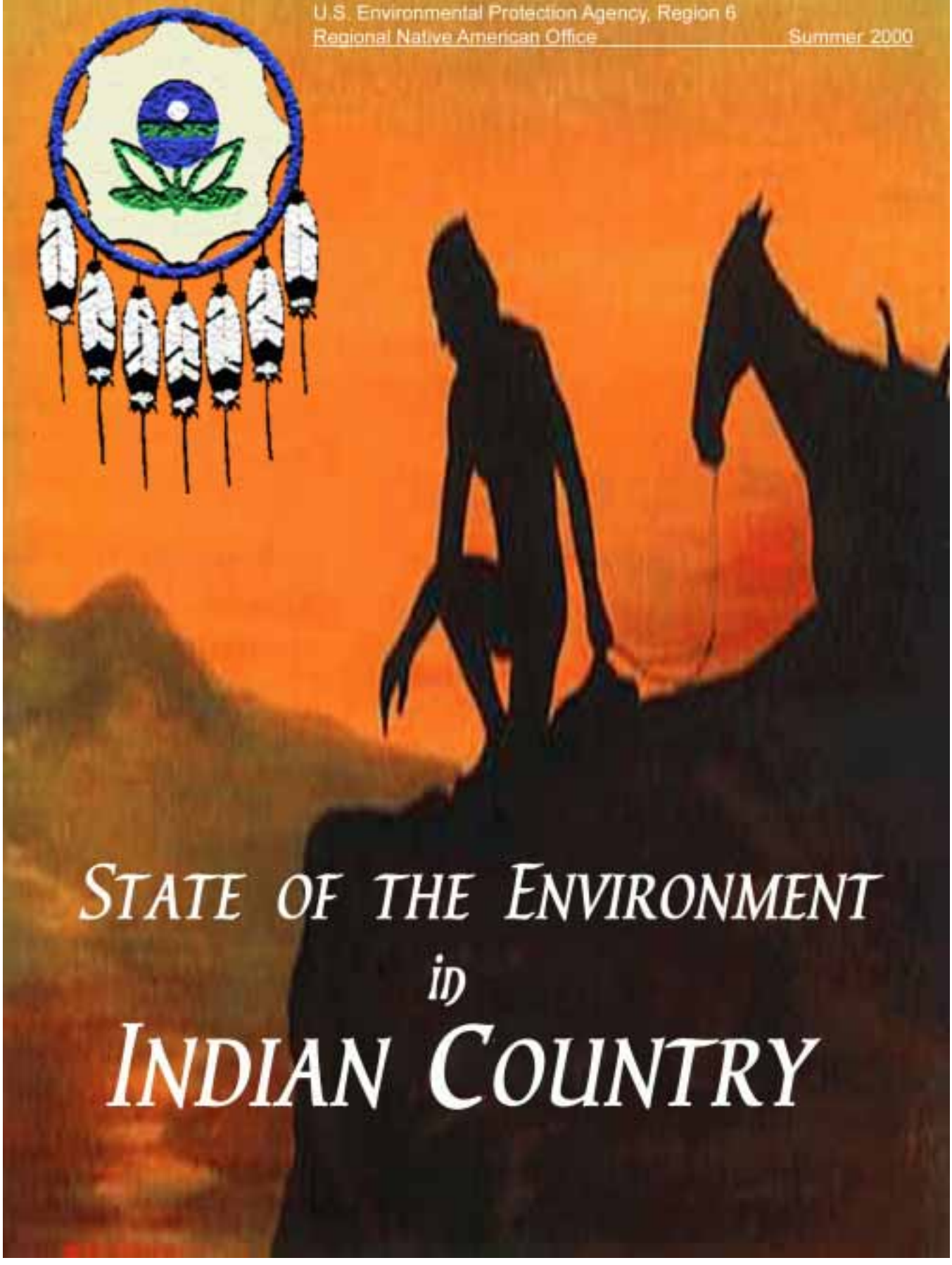
U.S. Environmental Protection Agency, Region 6
Regional Native American Office
Summer 2000



# STATE OF THE ENVIRONMENT IN INDIAN COUNTRY

# Indian Country and the Environment

Native Americans have the shortest life spans in this country. The poverty rate for American Indians is double the national average. Reservation residents are more likely to suffer from the effects of pollution than anywhere else in the country.

In Region 6, the Osage Mineral Reserve is larger than the State of Delaware or Rhode Island. Indian Country in New Mexico, at almost 4 million acres, is larger than the State of Connecticut. The Jicarilla Apache Reservation alone is larger than the State of Rhode Island.

Sky City at Acoma Pueblo is believed to be the oldest continuously inhabited site in the United States. The largest uranium strip mine in the world, Jack Pile Mine, is on Laguna Pueblo. Region 6 has the 2nd and 3rd largest Tribes in the country--Cherokee Nation and Choctaw Nation. However, 26% of Region 6 tribal governments serve less than 1,000 people. Only 53 of the 65 Tribes in Region 6 have received financial assistance from EPA to establish an environmental presence or environmental protection program.

EPA is working with the Tribes nationally to create a baseline assessment or characterization of the environmental conditions in Indian Country. Using existing data bases, input from the Tribes and others, the Agency will create this assessment to substantiate the need for greater attention to environmental conditions in Indian Country. This could result in more funding, more studies and more solutions to the environmental concerns in Indian Country.

As you read this report, you will see obvious omissions of data and questions that remain unanswered. Creating the baseline assessment is an Agency priority and will spotlight the need for more attention to the environmental needs of Native Americans.

EPA Region 6 encompasses the five states of Arkansas, Louisiana, New Mexico, Oklahoma and Texas. This report focuses on the 65 Federally-recognized Tribes within the five state area.

Imagine that each Indian Tribe has a cadre of fully developed and operational environmental programs that provide a safe environment for the residents of each Reservation. There are no more waterborne diseases, diseases caused by chemical contamination or diseases caused by airborne matter. Lead poisoning is no longer a threat in Indian Country. Subsistence and traditional foods are eaten without the fear of disease or poisoning. Reference doses for food are not factors in the Tribes' traditional lifestyles. In the event of a hazardous materials spill, each Tribe responds effectively to protect Reservation residents and the community. Tribal families living near agricultural areas are no longer affected by pesticide applications. Traditional uses of lakes, rivers, streams, oceans, and wetland areas can once again be practiced without the fear of contamination, poisoning, and disease caused by outside sources.

Imagine that.

Cover designed by Clovis Steib. Original artwork drawn by Bill Landis.
Comments on this report should be faxed to Ellen Greeney at 214-665-2118 or greeney.ellen@epa.gov.

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"A day will come in your lifetime when the earth, your mother,

will beg you, with tears running, to save her. Ho, if you fail

to help her, you and all people will die like dogs.

Remember this."

Hollow Horn

Sioux Medicine Man, 1929

# AIR AND TOXICS PROGRAMS

"Native people have always watched nature;

it is their textbook for living."

Sun Bear

Founder of Bear Tribe Medicine Society

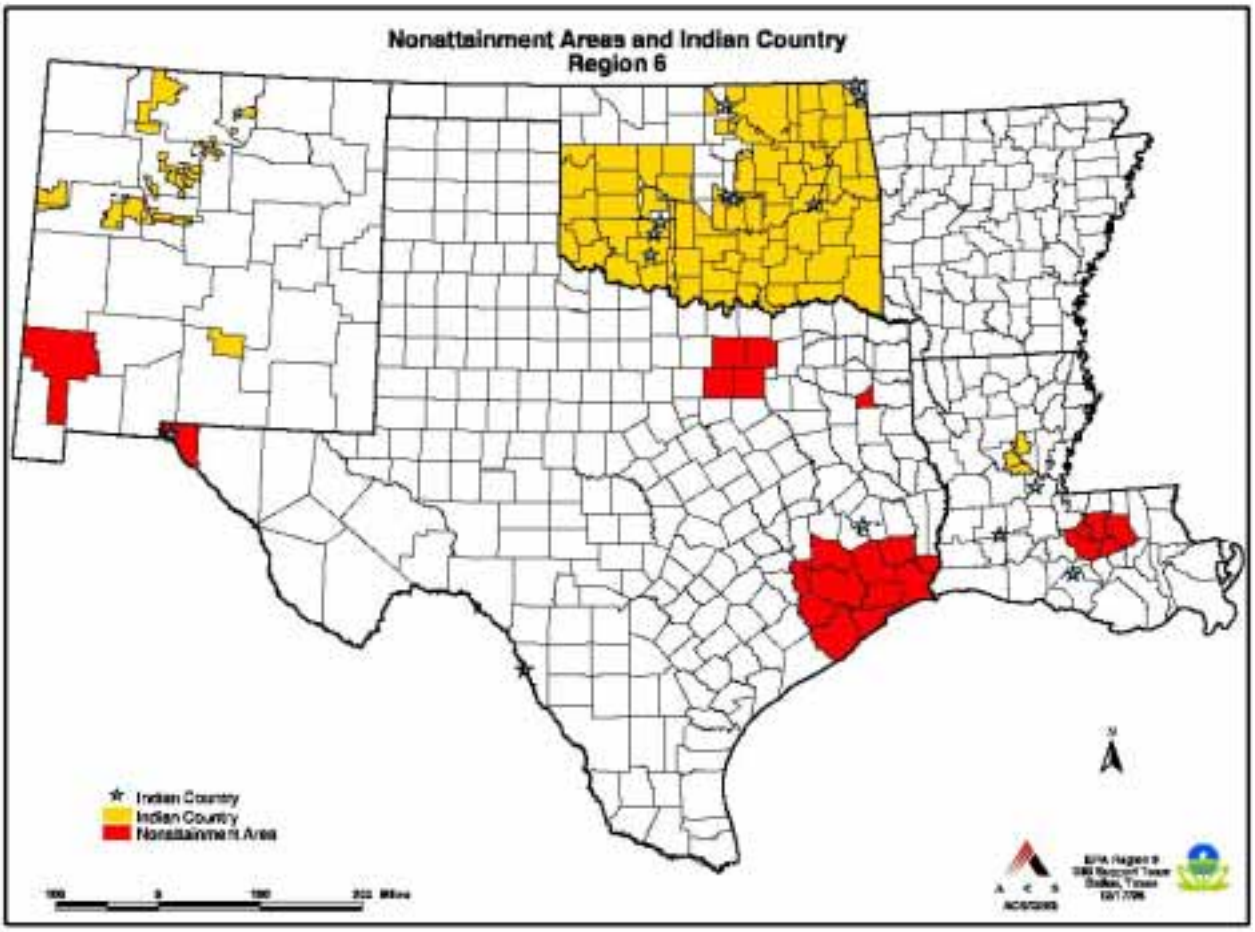
## Air Quality

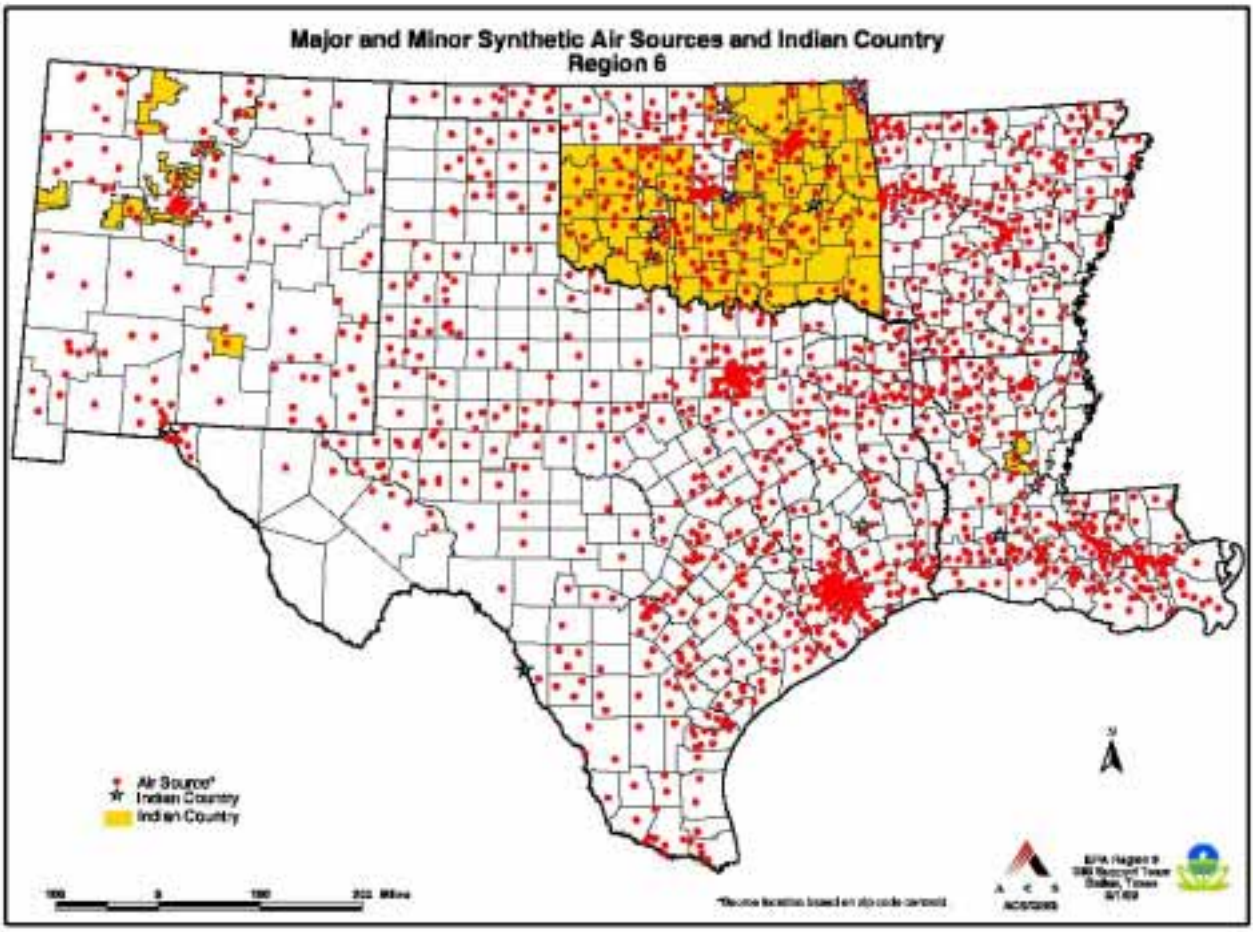
With the goal of preventing or controlling discharges of air pollutants into the atmosphere, Congress passed the original Clean Air Act (CAA) in 1980. Under the law, standards must be set to "protect public health with an adequate margin of safety." EPA recently completed a scientific review for five of the six pollutants and set new, updated standards for two of these--ozone and particulate matter.

Amendments to the Act of 1990 required EPA to issue regulations making Tribes full partners in the air quality planning and management process. In 1998, EPA issued a rule (commonly called the Tribal Authority Rule or TAR) to provide Tribes the authority to implement and administer CAA programs in essentially the same manner as States. The TAR also gives Tribes the ability to adopt only those portions of the CAA that apply to their situation.

Nationally, 83 Tribes are located in non-attainment areas. Only one Tribe in EPA, Region 6 is located in a Clean Air Act non-attainment area - Ysleta del Sur Pueblo in El Paso, Texas. The El Paso area is non-attainment for three pollutants: particulate matter (PM10), carbon monoxide (CO) and ozone (O3).

The Alabama Coushatta Tribe near Livingston, Texas, is located just north of the 8-county Houston area which is non-attainment for ozone. The Chitimacha Tribe in Charenton, Louisiana, is southwest of the 5-county Baton Rouge area which is also non-attainment for ozone.






Less than 70 Tribes nationally have begun to monitor air pollution and inventory air pollution sources in Indian Country.

At this point, Region 6 has a strategy in place to determine the number of major and minor sources of air pollution in Indian Country. Preliminary information indicates most sources affecting Tribes are road dust, auto emissions, and wood stove emissions. Also, some gas compressor stations, a gypsum mine, and a carbon black plant have been identified.

Nationally, incomplete data has identified more than 100 major and 750 minor sources of air pollution in Indian Country. No Tribe has a federal operating permit program for major sources of air pollution, nor has EPA issued any operating permits for these sources.

Source and emission inventories have been completed for 45 percent (26) of the Tribes located in Region 6 with completion expected later this year. Currently, at least half of the Tribes have expressed an interest in entering the air assessment process.

By entering this process and applying for a CAA §103 grant, the Tribe determines what air sources are impacting its land. Also, the Tribe receives support from Region 6 in addressing any problems uncovered by the assessment. The Region's first priority is to provide further financial support where air quality issues are identified.

Region 6 has one of the nation's leading programs in the deployment and operation of monitors used to determine air quality in

Industrial facility near Cherokee Nation

Indian Country. Three monitors, capable of addressing four National Ambient Air Quality Standards (sulfur dioxide [SO2], carbon monoxide [CO], ozone [O3], and particulate matter [PM10]), are presently in place in Oklahoma, specifically in Ponca City (Ponca Tribe), Tahlequah (Cherokee Nation) and Miami (Quapaw Tribe). These monitors began collecting official data in July 1999. Ozone exceedances occurred at the monitoring sites in Ponca City and Tahlequah in August, September, and October 1999.

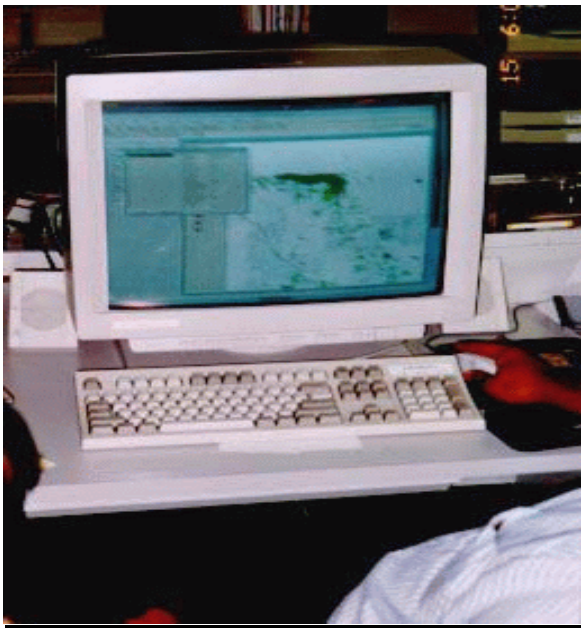
A PM10 monitor on the Santa Ana Pueblo in New Mexico began collecting data in January 2000.

The Region's PM2.5 samplers were among the first PM2.5 samplers operated by Tribes, nationally. Thirteen PM2.5 monitoring sites began operating in January 2000, at the following locations: Cochiti, Isleta, Jemez, Pojoaque, and Zia Pueblos in New Mexico, and the Delaware Nation, Cherokee, Cheyenne-Arapaho, Pawnee, Quapaw, Sac and Fox, Seminole and Ponca Tribes in Oklahoma.

While interest was expressed regarding some tribal lands becoming Class 1 (pristine areas), no Region 6 Tribes have moved in that direction.

The Tribal Authority Rule allows Tribes to have authority over all air resources within the exterior boundaries of a reservation. Oklahoma tribal boundaries are usually not well defined and tribal lands are not large, contiguous land masses. To determine the tribal lands and whether any pollution sources exist on them, Region 6 initiated a boundary study for all 37 Oklahoma Tribes.

Using Bureau of Indian Affairs land records, a database of the lands in tribal trust and individual trust is being compiled using a Geographical Information System (GIS). Maps prepared using this system can show the location of tribal boundaries, known sources, rivers, streams, highways and many other features important in making environmental decisions.



GIS project at Cherokee Nation

Funding for the tribal air program in Region 6 has grown from $53,600 in FY92 to $1,629,100 in FY99. These funds allow Tribes to enter the air assessment process, prepare source and emission inventories, enter into any needed monitoring activities, and provide for tribal capacity, training, and outreach.

The Region drafted its first federal operating permit in Indian Country in July 2000. The facility, owned by Transwestern Pipeline Company, is a natural gas compressor station located on Laguna Pueblo in New Mexico.

Five refiners will be requesting authorization from the State of Oklahoma to construct new equipment and modify existing equipment based on the Tier 2 low sulfur gasoline regulations published by EPA. The Tribes impacted by the activities at each refinery are: Conoco refinery in Kay County–Ponca, Tonkawa, Kaw, Otoe-Missouria and Pawnee; Sinclair and Sun refineries in Tulsa County-Muscogee (Creek), Pawnee, Cherokee, and Sac and Fox; Diamond Shamrock refinery in Carter County-Chickasaw and Choctaw; Williams refinery in Garvin County-Chickasaw, Sac and Fox, and Choctaw.

## Asbestos

On October 22, 1986, President Reagan signed the Asbestos Hazard Emergency Response Act (AHERA) into law. The Act required EPA to develop regulations creating a comprehensive framework for addressing asbestos hazards in schools.

The Act required EPA to construct a model accreditation program for individuals who conduct inspections for asbestos, develop management plans, and design and perform abatement work. Other provisions of AHERA require all tribal, public and private elementary and secondary schools to conduct inspections for asbestos-containing building materials, develop management plans and implement response actions in a timely fashion.

Asbestos is also regulated under the authority of the National Emissions Standards for Hazardous Air Pollutants in the Clean Air Act.


Mescelaro Elementary School

Currently, there are no Federally delegated asbestos programs in Region 6 Indian Country. Since the States do not have jurisdiction in Indian Country, Region 6 implements the program in these areas.

## Radon/Indoor Air Quality

The most common source of indoor radon is uranium in the soil or rock on which homes are built. As uranium naturally breaks down, it releases radon gas which is a colorless, odorless, radioactive gas.

Radon is naturally occurring in many parts of the country--most notably in Region 6 in New Mexico. Exposure to high radon levels is dangerous. The Surgeon General has warned that radon is the second leading cause of lung cancer in the United States.

The All Indian Pueblo Council (AIPC) is continually testing homes for radon. The results of the tests revealed that 12 of the 21 Tribes and Pueblos in New Mexico have elevated levels of radon in area homes; specifically, Acoma, Jemez, Laguna, Nambe, Picuris, Pojoaque, San Juan, San Ildefonso, Santo Domingo, Taos, and Tesuque Pueblos and Jicarilla Apache Tribe. Taos Pueblo reported 76% of the homes tested above EPA's radon action level.

The Jicarilla Apache Tribe has used grant funds to conduct outreach to tribal members concerning the health risks of radon and the availability of testing. Also, the Tribe is testing schools, tribal buildings and residences.

In 1996, 44 percent of the homes and one school tested over EPA's radon action level at the Tesuque Pueblo. Three homes were mitigated through a pueblo mitigation demonstration project and other homes are being vented to alleviate the radon problem.

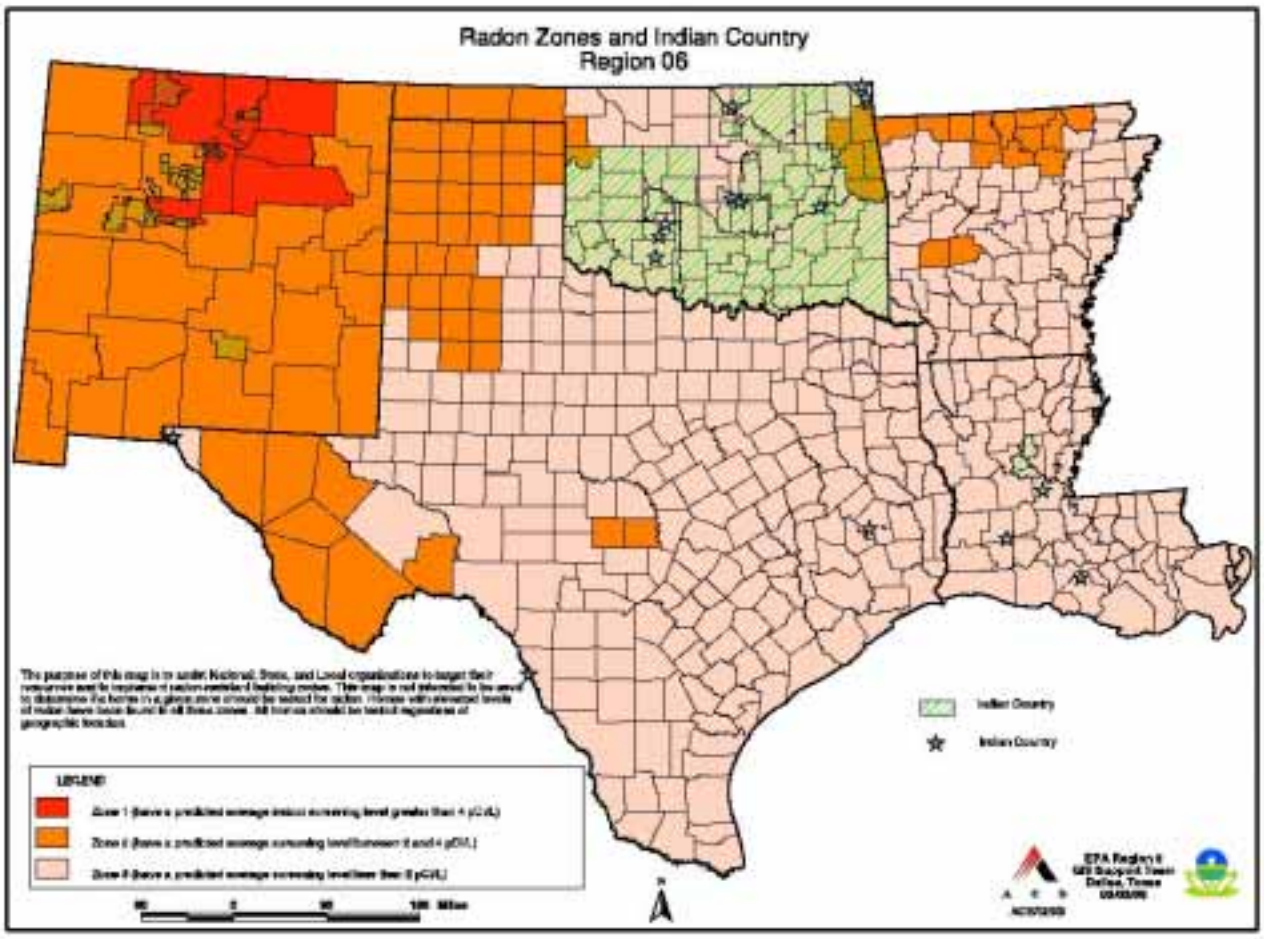
Over $1.5 million has been awarded through FY 98 to the AIPC, Chickasaw Nation, and Cherokee Nation.

## Pesticides

Few chemicals have had as much impact or been the subject of as much controversy in recent decades as pesticides. EPA has the authority to regulate pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

The Bureau of Indian Affairs estimates that 8 million acres of Indian Country are farmed, 6 million acres are forested, and 38 million acres are used for grazing. At least 13 million acres receive pesticides.

Pesticide applications are believed to disproportionately affect tribal people due to subsistence living and cultural practices, such as basket weaving.



In Region 6, over 3 million acres of Indian Country is used for agricultural or grazing purposes and the use of pesticides is unknown. The most active pesticides program is maintained by the Jicarilla Apache Tribe in Dulce, New Mexico.

The Jicarilla Apache Tribe (JAT) has received Pesticides funding from EPA since FY 93. They have developed regulations for the use of chemical pesticides on the Reservation. Their Pesticide Control Office (PCO) requires all pesticide applicators operating on the Reservation to have a valid New Mexico or National EPA commercial or private applicator's license. All applicators operating on the reservation are required to register with the JAT Pesticide Control Office to obtain a tribal applicator permit.

All restricted-use pesticides used on the Reservation must be approved by the PCO prior to its use. The PCO enforces this ordinance as well as inspecting applications of pesticides in housing and outdoors.


Victor Poison Free product

In addition, they inspect pesticide products in the market place to assure that they are properly labeled and registered with the EPA and are properly disposed of, if necessary.

They provide public information on proper pesticide use during health fairs and via radio announcements. The Tribe participated in an Inter-tribal inspection project which included hosting pesticide workshops for other interested Tribes in New Mexico to share information on pesticide use and safety issues.

Buffalo on San Juan Pueblo

During a routine marketplace inspection, the JAT removed a problem product from the shelves using their pesticide enforcement authority. The JAT inspectors can conduct marketplace and site inspections with the staff of other interested Tribes, on their lands, if requested.

EPA is required under the Endangered Species Act to protect listed species and their habitat from the effects of pesticides. The JAT has mapped the location of such species on their lands. This information is used by the JAT PCO to ensure that pesti-cide use does not endanger these species.

Several Tribes in Oklahoma have received pesticides funding in FY 98 and FY 99 to carry out outreach/educational projects with their people. Some projects have focused on

compiling information on pesticides commonly used, safety issues, alternative pest control to chemical application and integrated pest management in schools and day care centers.

Thlopthlocco Tribal Town Day Care Center

Some Oklahoma Tribes have concerns about groundwater protection and are beginning to develop Groundwater Management Plans that would allow them to continue to use those pesticides which have been identified as potentially harmful to groundwater. The Iowa Tribe of Oklahoma hosted a Ground water Management Plan workshop in 1999 in conjunction with an EPA representative who presented the information on the development of these plans. Several Oklahoma Tribes attended the workshop.

The Caddo Tribe was selected to receive assistance from US Geological Service to map their groundwater sources, in preparation of developing a Groundwater Pesticides Management Plan.

Overall, $633,003 in grant funds have been awarded in Region 6 to establish pesticides programs in Indian Country.

## Toxics—PCBs

Polychlorinated biphenyls (PCBs) are mixtures of synthetic organic chemicals with the same basic chemical structure and similar physical properties ranging from oily liquids to waxy solids. Due to their non-flamability, chemical stability, high boiling point and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications including electrical, heat transfer, and hydraulic equipment; as plasticizers in paints, plastics and rubber products; in pigments, dyes and carbonless copy paper and many other applications. More than 1.5 billion pounds of PCBs were manufactured in the United States prior to cessation of production in 1977.

In 1976, concern over the toxicity and persistence in the environment of PCBs led Congress to enact Section 6(e) of the Toxic Substances Control Act (TSCA) that included among other things, prohibitions on the manufacture, processing, and distribution in commerce of PCBs. Thus, TSCA legislated true "cradle to grave" (i.e. from manufacture to disposal) management of PCBs in the United States.

Types of electrical equipment manufactured with PCBs include transformers and their bushings, capacitors, relcosers, regulators, electric light ballasts, and oil switches.

An electric light ballast is the primary component of fluorescent light fixtures. These items generally are located within the fixture under the metal cover plate. A ballast unit may have PCBs in its small capacitor and potting material which is insulating material that fills the space between the functioning parts of the ballast and its outer metal covering.

The first step in determining whether the equipment contains PCBs is to look at the metal nameplate permanently affixed to the unit by the manufacturer. Manufacturers have been prohibited from using PCBs when they manufacture electrical equipment since 1979. So any item of electrical equipment

manufactured since then should not contain PCBs, so long as it has not been serviced with PCB-containing oil.

If a piece of equipment is not marked by the manufacturer with the PCB content, and no further information is known, the Tribe must either test the dielectric fluid, or assume it contains PCBs and manage the item according to the regulations.

Most of the PCB-containing electrical equipment has been authorized under existing regulations for the remainder of its useful life subject to it being totally enclosed, intact and non-leaking. The amount of PCB- containing electrical equipment in use is not known.

A facility in Ponca City paid a penalty to settle a 1997 complaint for alleged violations concerning the management of PCBs. The overall impact of any possible PCB contamination in Indian Country is unknown.

## Toxics—Lead (Pb)-Based Paint

Lead poisoning is known to cause serious health problems, especially in children. Even at low levels, lead poisoning can result in learning deficiencies, reduced intelligence, and other developmental problems.

One of the remaining sources for lead exposure is through lead-based paint. Lead-based paint was banned for residential use in 1978. Any house built before then may contain it. It is estimated that about half of the existing homes in the U.S. contain some lead-based paint. Approximately 900,000 children ages 1-5 have elevated blood lead levels.

No data is available to assess the extent or existence of a lead-based paint problem in Region 6 Indian Country. The Housing and Urban Development Department, Bureau of Indian Affairs and the Indian Health Service have the ability to assist Tribes with this problem.

Financial assistance to establish a program to regulate those involved in lead-based paint activities has been authorized by the Toxic Substances Control Act since 1994.

Pueblo housing

The Cherokee Nation has passed legislation, developed regulations and submitted its application for delegation of the federal lead-based paint abatement certification and accreditation program. The final issue to be resolved before approval of program delegation involves jurisdiction.

During FY 2000, two Pueblos (Acoma and Jemez) conducted surveys and sampling projects to determine the existence and extent of lead-based paint hazards in tribal homes and schools.

Beginning in FY 2001, the Wyandotte and Cherokee Nations will be conducting blood-lead level screening for tribal children and public education outreach campaigns regarding the hazards of lead. The Eastern Shawnee will be conducting a similar public education campaign.

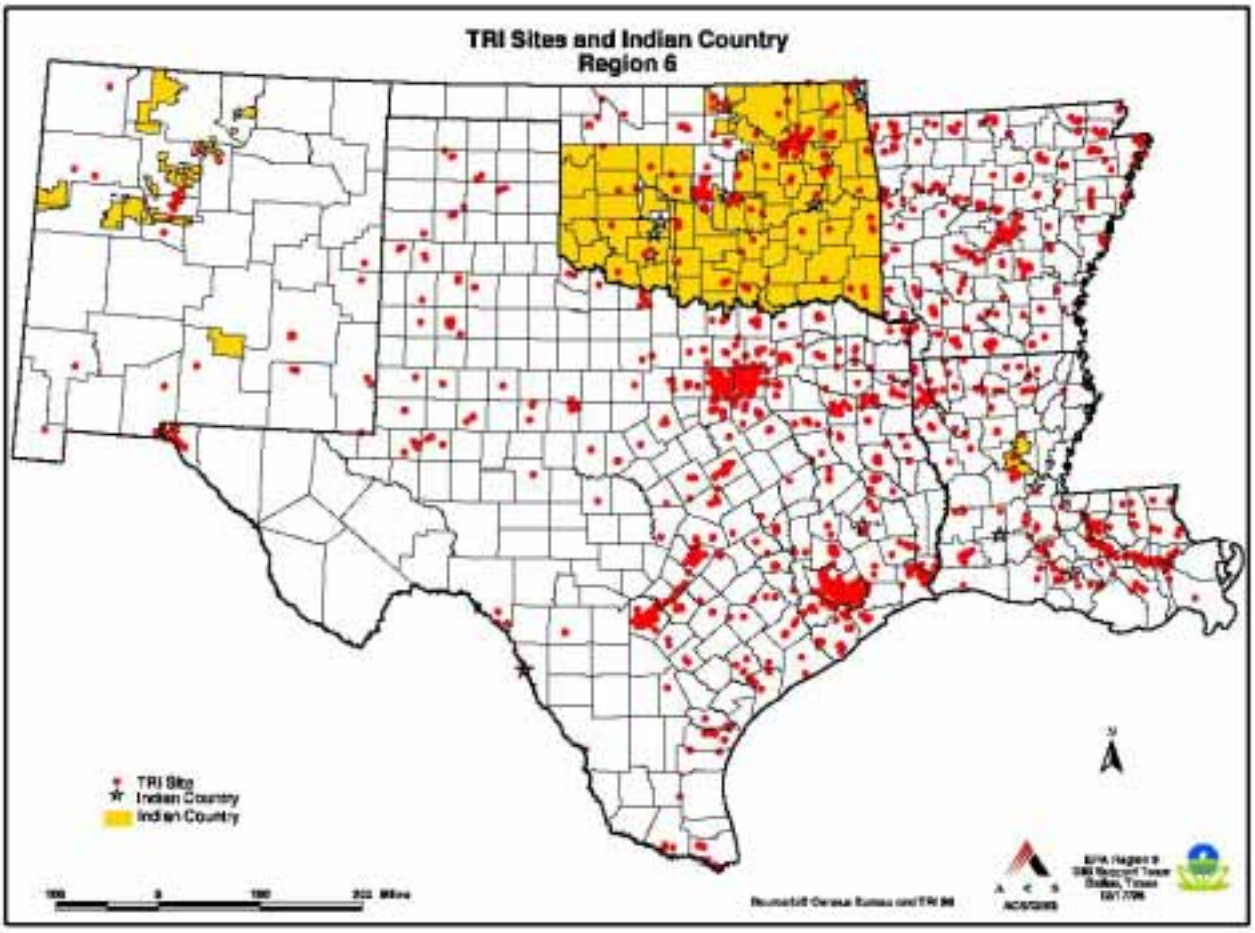
## Toxics Release Inventory Program (TRI)

Congress passed the Emergency Planning and Community Right-to-Know Act (EPCRA) in 1986 which mandates that certain businesses submit annual reports on the amounts of certain chemicals the facilities released, either routinely or by accident. In 1994, all Federal facilities were also included.

The purpose of TRI is to provide community and government officials information about chemical releases into the environment. In many cases, this information has stimulated reductions in emissions, both through focusing facility managers' attention on wastes and increasing public involvement.

An inventory of regulated sources has not been conducted. Also, there is no known program in place to address TRI issues in Indian Country. The map below indicates the possibility of numerous facilities in or near Indian Reservations.

The jurisdiction boundary questions for the tribal lands in Oklahoma contribute greatly to the unknown factor. TRI facilities for Tribes and Pueblos in New Mexico are more readily identifiable including Wall Colmonoy and a copper mine on Isleta Pueblo, Shollenbarger Wood Treating facility near Santa Ana Pueblo, and Shidoni Fndy, Inc facility near Tesuque Pueblo.



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# LAND PROGRAMS

"The white man views land for its money value.

We Indians have a spiritual tie with the earth,

a reverence for it."

Harriett Pierce

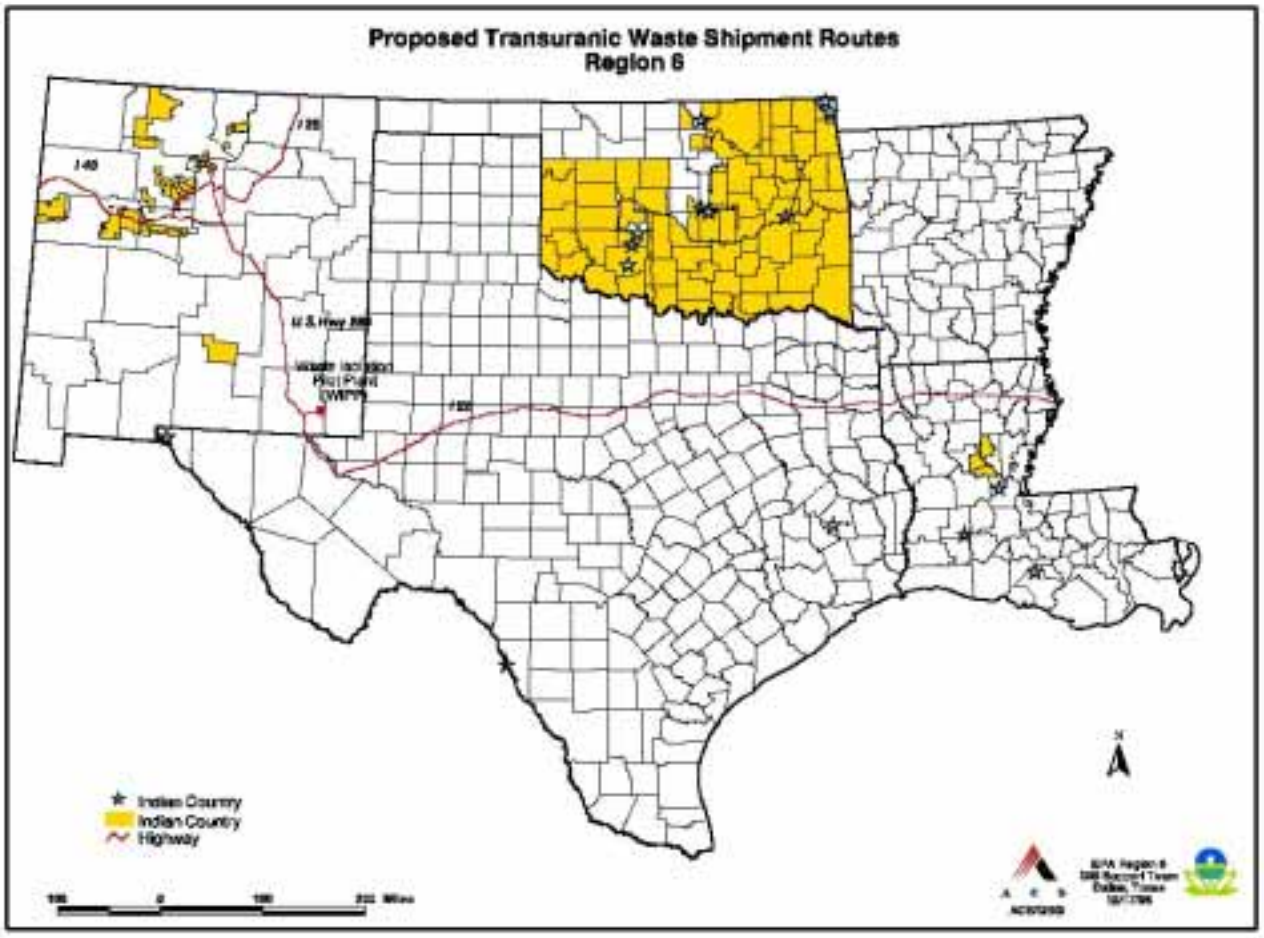
Seneca Bear Clan, descendant of Cornplanter

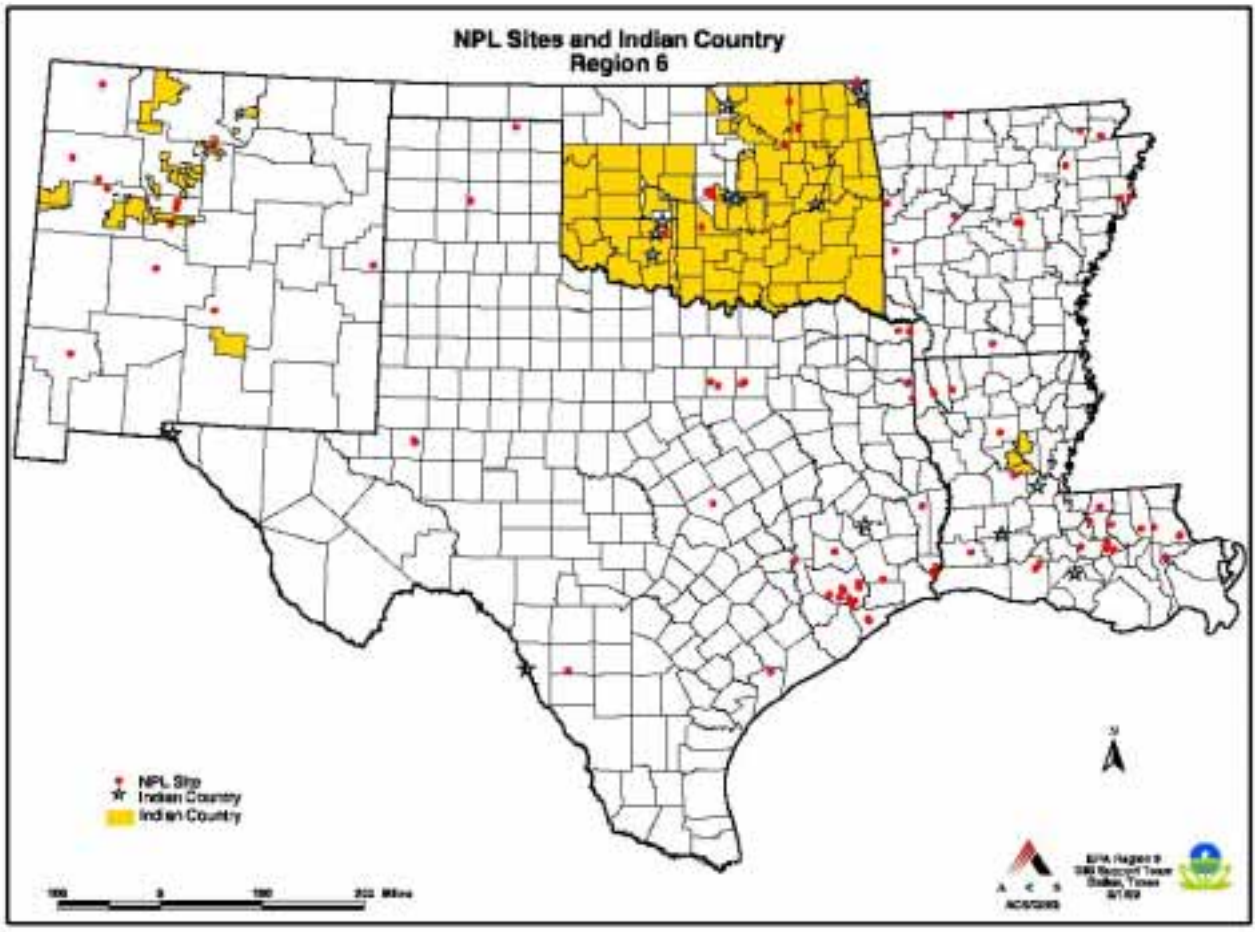
## Emergency Response Planning

Tribes are required to establish Tribal Emergency Response Commissions (TERCs) or associate themselves with already-established Local Emergency Planning Committees (LEPCs). These commissions or committees are responsible for developing a local plan to respond to chemical emergencies in their jurisdiction as well as exercise, review and update the plan annually.

Nationwide, only 35 Tribes or 6% have Emergency Response Plans. To date, four Tribes in Region 6 have approved and established TERCs--Caddo, Jicarilla Apache, Acoma and Pojoaque. Another six participate with LEPCs--Osage, Caddo, Cherokee, Ponca, Nambe, and Kickapoo Traditional Tribe. There is a lack of community emergency preparedness and planning relating to hazardous waste transportation with the Pueblos in New Mexico. The Pueblos have a combined land base of over 2 million acres. Many highways, railways, oil pipelines and air traffic pass through and over these Tribal lands.

With the opening of the Waste Isolation Pilot Project in Carlsbad, New Mexico, trucks hauling defense-related nuclear waste began driving through or near several Tribes and Pueblos. The *Transuranic Waste Shipment Routes in Region 6* clearly indicates that the transportation routes impact several Tribes and Pueblos.






Funding to assist Tribes develop adequate emergency response plans have been awarded to Pueblo of Acoma ($93,877), Eight Northern Pueblo Council ($135,080), Caddo Tribe ($32,338), Miami Tribe ($13,590), Ponca Tribe ($42,085) and Quapaw Tribe ($18,985).

EPA also provided a grant to the Kickapoo Traditional Tribe to purchase a vehicle for emergency response. The Eagle Pass Fire Department trained Kickapoo volunteers on the requirements of Superfund and education materials on emergency preparedness.

## Superfund Program

The Superfund program's Hazard Ranking System (HRS) tends to address a relatively urban scenario mostly based on human exposure risks. The HRS does not take into account tribal cultural factors such as detriment to sacred areas or places of tribal significance, which are of high priority to the Pueblos in Region 6. At the inception of Superfund, the States were provided the opportunity to select one site per state to be listed on the National Priorities List (NPL). The statute did not provide this opportunity for Tribes or Pueblos.

Since Fiscal Year 1989, two Tribal consortia in Region 6 (All Indian Pueblo Council and Inter-Tribal Environmental Council of Oklahoma) have received over $10.5 million to implement a Superfund program in Indian Country.

The All Indian Pueblo Council (AIPC) has evaluated 53 sites and the Inter-Tribal Environmental Council of Oklahoma (ITEC) has evaluated 117sites. To date, none of the sites evaluated has ranked high enough to be considered for listing on the National Priorities List. Of the region's NPL sites, several may impact Indian Country: North Railroad Avenue Plume, Molycorp, Hudson Refinery, Tulsa Fuels, Tar Creek, Basin Refining, Wewoka Refinery, Maud Refinery, and Oklahoma Refining.

Cyril Superfund site near Comanche land

In May 1998, EPA's Office of Emergency and Remedial Response and the Office of Site Remediation Enforcement asked for pilot projects to develop expanded roles and relationships between EPA, States and Tribes. AIPC was awarded funding for three pilot projects. These projects include incorporating Tribal cultural values into the HRS ($100,309), emergency planning for Pueblos ($97,304), and developing a bioremediation training module for Pueblos ($448,000).

AIPC has completed the bioremediation phase of the Laahty Family Dip Vat and completed sampling to determine the extent of contamination at the Henry 'O Dip Vat, the next dip vat to undergo the bio-remediation process by the Zuni Tribe.

The North Railroad Avenue site in Española, New Mexico, is within the exterior boundaries of the Santa Clara Pueblo. The All Indian Pueblo Council receives funds from EPA for its participation and for Santa Clara Pueblo's participation in the investigation of this site. The Pueblo participates in all planning meetings, reviews all documents, and provides guidance for conducting that portion of the investigation involving tribal lands.

In April 2000, Santa Clara Pueblo received $83,700 to hire staff to conduct a Tribal Risk Assessment to document the impacts of contamination from the site to Tribal land. By conducting the risk assessment for Tribal land, Pueblo staff will be able to protect the sensitivity of the Pueblo's traditional cultural and religious uses of natural resources, while assessing the impacts of the North Railroad Avenue Plume Superfund site to the Pueblo's residents and natural resources.

Two NPL sites in New Mexico are on Navajo land; specifically, Prewitt Refinery and United Nuclear Corporation. Since 1989, Region 6 has provided over $700,000 in management assistance funds to the Navajo Nation. The Agency's government-to-government relationship with the Navajo Nation is the responsibility of EPA Region 9 because the Nation's tribal headquarters is in Arizona and Region 9's jurisdiction.

The Tar Creek Superfund Site located in Ottawa County, Oklahoma, is composed of approximately 40-square miles in northern Ottawa County where lead and zinc mining activities were conducted. The site includes a substantial amount of Indian land (primarily the Quapaw Tribe) and much of the mining and milling occurred on Indian land.

Many giant chat piles remain in the area, posing a threat to recontaminate cleaned areas. The Oklahoma Department of Environmental Quality (ODEQ) has the lead role in investigating and developing cleanup alternatives for the remaining areas of the site (including the chat piles). ITEC and Quapaw Tribe will conduct an investigation and feasibility study (RI/FS) on two industrial properties on the site as a national Tribal Pilot Project. This is the first Tribal RI/FS pilot in the nation.

ITEC and the Quapaw Tribe will also be conducting an RI/FS on the Beaver Creek watershed, which flows through the Quapaw Tribal Pow-wow grounds.

## Brownfields Program

A brownfield is a site, or portion of a site, that was once used for industrial or commercial purposes and has since been abandoned. Some sites have actual or perceived contamination but have potential for reuse or redevelopment.

Brownfields presentation at Acoma Pueblo

In May 1997, Vice President Al Gore announced the Brownfields National Partnership Action Agenda. This undertaking provides a framework for cooperation among tribal and State governments, local communities, and businesses to assess, clean up, reuse and prevent brownfields. EPA's Brownfield Initiative identifies and addresses barriers to clean up and redevelopment and recommends measures for change using the existing Superfund Law. EPA selected the Comanche Nation for a Brownfields site assessment pilot in July 1998. The pilot focuses on the Fort Sill School Facility and the Southwestern Hospital (outdoor lead and asbestos contamination).

In July 1999, the Regional Administrator presented a $200,000 check to Acoma Pueblo to fund their Brownfields project to look at several former sheep dip vat areas.

On May 20, 2000, EPA announced that the Cherokee Nation of Oklahoma would receive a Brownfields Assessment grant for $200,000 with an additional $50,000 in greenspace funds. This project will focus on the redevelopment of three sites: the Cherokee Nation Hog Farm, the Cherokee Nation Landfill and Tribal lands in Kay County, Oklahoma

The Ponca Tribe has requested EPA assistance in conducting a brownfields assessment on the Chilocco School property. The Tribe is receiving a targeted brownfields assessment from the Oklahoma Department of Environmental Quality.

## RCRA Hazardous Waste

Hazardous waste is prevalent throughout all levels of commerce and industry. Wastes are identified as hazardous if they pose a potential danger to human health or the environment when not properly treated, stored, transported, disposed or otherwise managed.

Wall Colmonoy facility on Isleta Pueblo

Potential dangers include: explosions, fires, corrosive destruction of materials, chemical reactions and health impairing exposure to toxic chemicals.

The greater the quantity or concentration of chemicals exhibiting any of these dangers, the greater the need to assure their proper management.

In 1976, Congress enacted the Resource Conservation and Recovery Act (RCRA) as the primary regulatory vehicle to assure that hazardous waste is properly managed from the point of its generation to its ultimate disposal or destruction often called "**from cradle to grave.**"

RCRA establishes a very complex and comprehensive set of requirements to define which hazardous waste is subject to regulation as well as the responsibilities of anyone who generates, transports, stores, treats, disposes or otherwise manages hazardous waste. At this time, waste generated by individual households is not subject to Federal RCRA requirements.

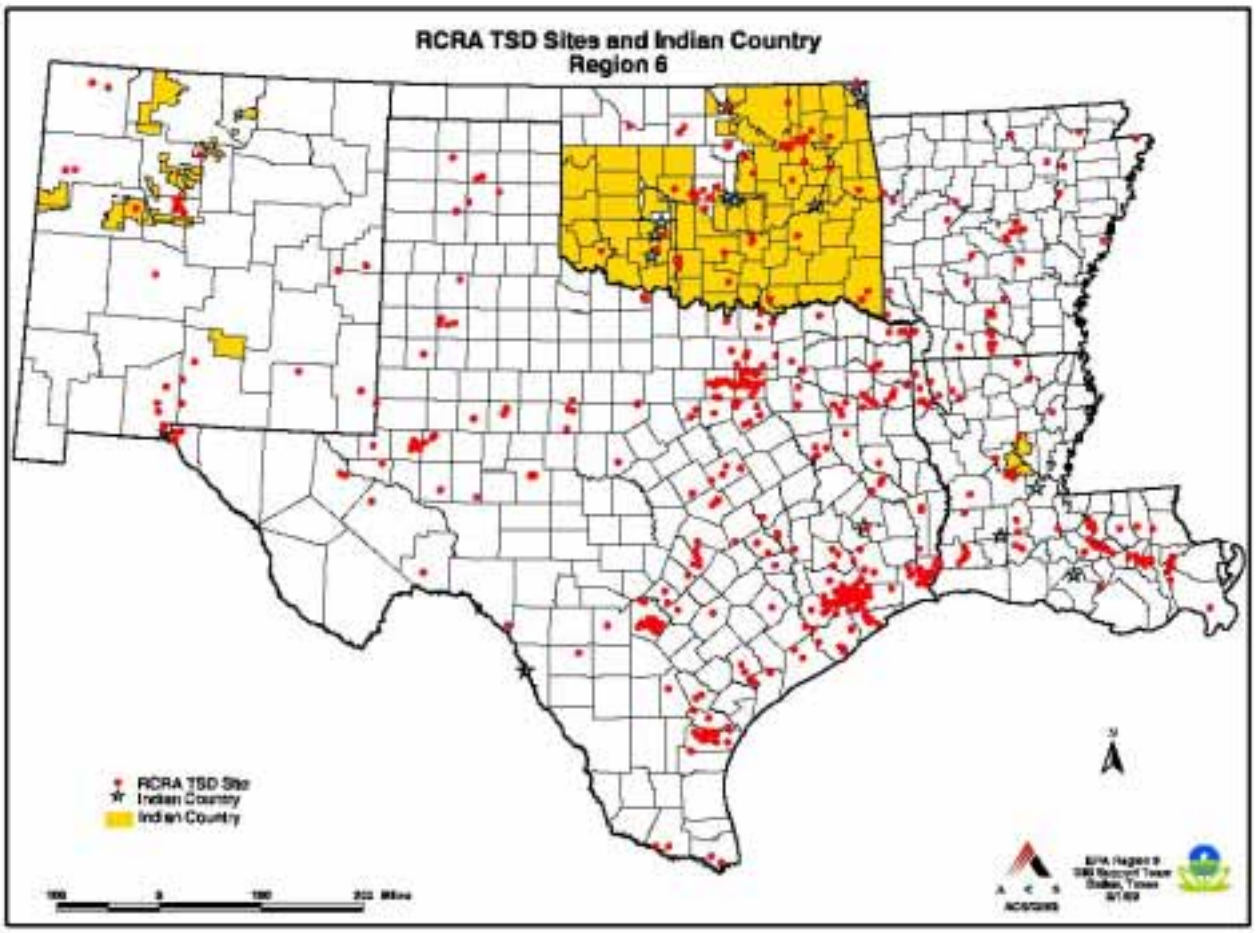
For example, the Taos Pueblo conducted a Household Hazardous Waste Disposal Day at their Solid Waste Transfer Station. Several drums of anti-freeze, latex paint, solvents, and pesticides were collected.

The Los Alamos National Laboratory has been performing investigations/cleanups on former waste sites within the facility for the past 9 years, as required by their hazardous waste permit. Several of the waste sites are located in canyons or have had releases of hazardous constituents from waste sites located on the mesa tops down into the canyons. Some of these canyons pass through the San Ildefonso Pueblo.

In August and September of 1998, an EPA contractor took effluent, groundwater and spring samples within the lab boundaries and from San Ildefonso tribal lands. Results indicated groundwater contamination of radionuclides (Tritium and Strontium 90) in the shallow canyon aquifers located within the facility boundary. The shallow aquifer is not used for drinking water and no contamination was found in the regional aquifer which is used as the drinking water source for Los Alamos County.

Also, some of the springs located within the lab boundary had radionuclide contamination. None of the springs or wells located on San

Gas compressor station in Kay County, Oklahoma




Ildefonso tribal lands indicated contamination. The State and EPA recommended additional wells be installed to characterize groundwater contamination and flow patterns in each canyon.

## Solid Waste Disposal Program

In 1976, Congress directed EPA to develop standards for the disposal of solid waste. The two main regulations that were developed are 40 CFR Parts 257 and 258.

**40 CFR Part 257** applies to all solid waste disposal sites and practices except agricultural and mining waste. The minimum criteria include evaluating the location of a site (such as flood plains and endangered species habitats) and limiting disease-carrying rodents or insects, groundwater contamination and explosive gases.

These regulations generally apply to a range of disposal facilities from monofills to construction and demolition debris disposal sites. This regulation has been in effect since 1979.

**40 CFR Part 258** pertains to disposal sites which accept household (or municipal) waste. Household waste is defined as any solid waste from households such as single and multiple residences, hotels and motels, bunkhouses, ranger stations, campgrounds, picnic grounds, and day-use recreation areas).

The Solid Waste Disposal Act (SWDA) of 1984 prohibits open dumping. EPA rules and

Open dumping in Indian Country

regulations required dumps be closed by October 9, 1997, final covers on dumps by October 9, 1998, and established guidelines for municipal solid waste disposal. These rules and regulations placed enforcement authority with citizen suits and implementation with States.

The Indian Lands Open Dump Cleanup Act of 1994 charged the Indian Health Service(IHS) with responsibility to implement this Act in coordination and concurrence with EPA. The Act requires IHS and Tribes to develop long-term solid waste plans within 10 years. This Act did not change the SWDA of 1984 or EPA regulations.

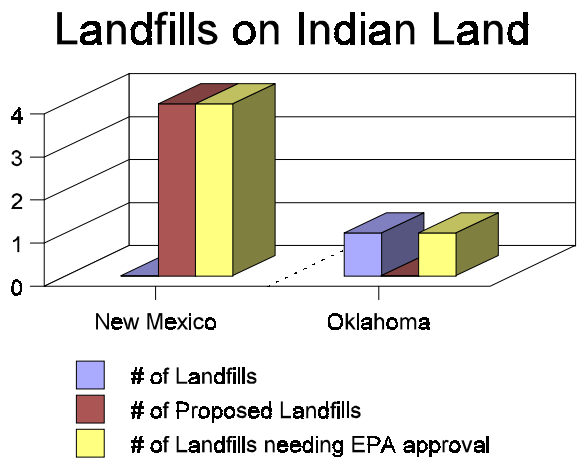
The Jicarilla Apache Tribe, San Juan Pueblo, Santa Clara Pueblo, Acoma Pueblo, Pueblo of Taos, Pueblo of Laguna and Pueblo of San Felipe submitted acceptable closure plans for their open dumps.

The solid waste program also works with Tribes, States and non-profit organizations to expand markets for recycled materials, stimulate economic development and create jobs. Using the Jobs Through Recycling Initiative, EPA provides grants to States and Tribes so that the recipients can provide financial, permitting, marketing and technical management assistance to recycling businesses.

Roadside recycling operated by Jicarilla Apache

Also, States and Tribes develop programs that put to productive use recovered materials that would otherwise be landfilled or incinerated, employ innovative technologies to use recovered materials collected in recycling programs and stimulate economic growth and create jobs.

Three Tribes have received funding for their job creation/environmental protection programs (Pueblos of Taos and Santa Clara and Jicarilla Apache Tribe). EPA also supports the development and/or enhancement of source reduction, recycling, and composting programs through a variety of other grants programs.



White goods recycling at Laguna Pueblo

Eleven Pueblos operate transfer stations and recycling centers: Isleta, Laguna, Pojoaque, Acoma, Jemez, San Juan, Zia, Zuni, Santa Clara, Sandia and Santa Ana. Funding for these efforts have come from EPA, BIA, and ANA.

The Region has awarded $2.2 million to Tribes, Pueblos, and consortia under RCRA and SWDA from FY 90 through FY 98.

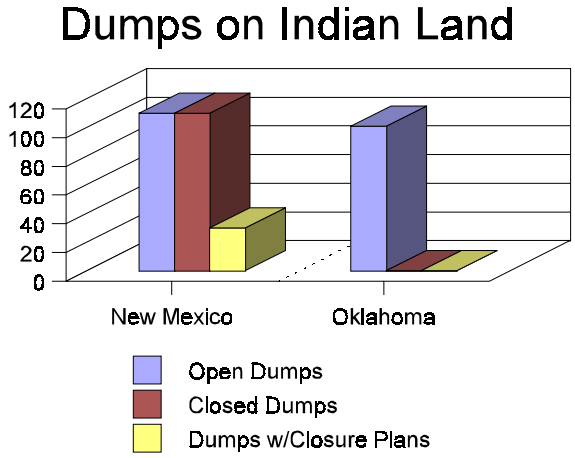
The EPA had intended to offer permitting program approval to Tribes as well as States under RCRA, Subtitle D. However, a court decision, commonly called the Campo decision, ruled that EPA cannot treat Tribes as States and approve their permitting programs. The Agency has therefore developed a site-specific rulemaking process to meet its goal of providing flexibility to owners and operators in Indian Country.

Under this process, an owner or operator can request to use certain alternative approaches or a waiver to meet the performance standards at a specific Municipal Solid Waste Landfill (MSWLF) site. Tribal government owners and operators submit requests directly to EPA Regional Offices for approval, while other owners and operators, including individual tribal members, submit requests to the tribal government. The Tribal government will review the request and forward it to EPA for approval. On July 30, 1997, the Flexibility Rulemaking received final approval from HQ.

Nationally, only 66 Tribes (12 percent) have solid waste management plans.

On December 30, 1998, EPA received the second Draft Environmental Impact Study (EIS) from the BIA for the proposed High Mesa Environmental Facility on the Nambe Indian Reservation in Santa Fe County, New Mexico. The purpose of the EIS is for BIA to allow the use of tribal lands for the construction and operation of a solid waste management facility. Under §309 Review of the Clean Air Act, and §258 of Subtitle D, EPA completed its review of the Draft EIS and the proposed action for the Bureau of Indian Affairs.

Significant deficiencies were identified in the review of the Draft EIS. Deficiencies included under §258 of Subtitle D are: format and content, physical and biological resource impacts assessment, regulatory compliance discussion, waste acceptance training, floodplain impacts, seismic impact, explosive gases control, run on and run off control, record keeping, design criteria, groundwater monitoring and corrective action, closure and post closure care, financial assurance. EPA



also found the Draft EIS inadequate for the purposes of NEPA and §309 Review. BIA is currently addressing these concerns.

On December 15, 1998, Region 6 received a request from the Cherokee Nation for a Site-Specific Memorandum of Agreement on their operation and expansion of the Municipal Solid Waste Landfill in Tahlequah, Oklahoma.


Landfill sign in Tahlequah

The Cherokee Nation package consisted of Tribal Solid Waste Management (SWM) Codes, Ordinances and Regulations; 40 CFR §258 Subtitle D criteria for MSWLF which includes: Location Restrictions; Operating Criteria; Design Criteria, Groundwater Monitoring and Corrective Action; Closure and Post-Closure Care Requirements, and Financial Assurance Criteria. Tribal policy and procedures related to operation, enforcement, and compliance. EPA conducted a peer review process of this application and submitted comments to the Cherokee Nation for consideration.

Region 6 developed a closure and post-closure plan for solid waste management on Indian Lands. The purpose of the generic closure plan was to assist Tribes in meeting the October 9, 1997 deadline and to close their open dumps by October 9, 1998. Region 6 used a peer review process to finalize the document and coordinated this review process with Indian Health Service (IHS), tribal leaders and EPA HQ before finalizing the document.

The guidance document is available through the Regional Internet Indian Solid Waste Web Site. The Regional Web Page addresses several issues: EPA Regional Guidance Documents, EPA Regulations, Grants Proposals, Monthly Success Stories, Tribal Contacts as well as State Contacts, EPA HQ and Other Regional Links, and Tribal Consortia nationwide.

Region 6 drafted a generic model for Tribal Solid Waste Management Codes, Ordinances and Regulations in Indian Lands. The purpose of the generic model is

- to assist the Tribes in managing and regulating the storage, collection, transportation, handling, treatment and disposal of solid waste in Indian Country;
- to protect the health and welfare of present and future members of the Tribes by providing for prevention and abatement of air, surface, and groundwater pollution and other public health and environmental hazards relating to solid waste management;
- to promulgate and enforce ordinances providing for the health, safety, and welfare of the Tribe and its members and residents;
- to maintain law and order and to protect the environment on the Reservation;
- to administer justice on the Reservation;

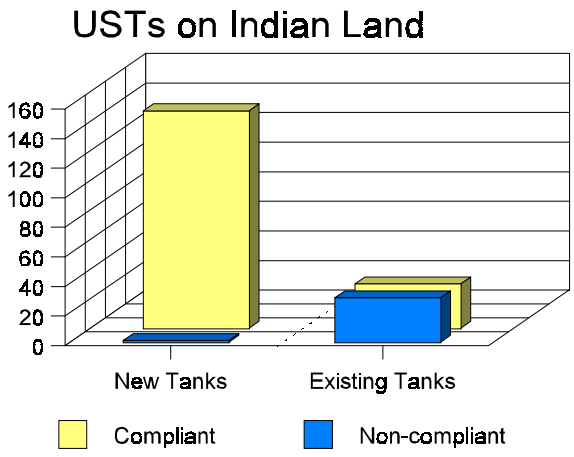
- to regulate Tribal boards, agencies, and employees; and

- to delegate to Tribal boards, agencies, and employees, the foregoing powers, subject to review by the Council.

Region 6 will be using an EPA peer review process, Indian Health Service (IHS), all tribal leaders, All Indian Pueblo Council's Pueblo Office of Environmental Protection (AIPC-POEP), and Inter Tribal Environmental Council of Oklahoma before finalizing the document.

## Underground Storage Tanks

An underground storage tank (UST) is any tank or combination of tanks, including underground piping connected to the tanks, that has at least 10 percent of its volume underground and stores regulated substances which include petroleum products and hazardous substances (not hazardous wastes regulated under RCRA Subtitle C). The UST regulations (40 CFR Part 280) require owners and operators of USTs located on tribal lands to notify (register with) EPA.




Federal regulations also establish technical requirements for installation of new tanks and operation, maintenance and upgrading for existing tanks. Requirements for the proper operation of USTs include release detection, corrosion protection for metal USTs and piping, recordkeeping, release reporting, corrective action, and financial responsibility.

Abandoned gas pump at Chilocco Indian School

The goals of the UST regulations are to prevent, identify and clean up leaks and spills. Most important, all existing USTs were required to be upgraded to new tank standards on or before December 22, 1998.

These regulations also require owners and operators to assume financial responsibility for correcting the problems created by releases.

A significant number of Tribes own and/or operate service stations with underground

storage tanks. There are also independently owned tanks located on Tribal lands and within the exterior boundaries of Reservations. Many of these tanks have been upgraded and are in compliance with the requirements.

EPA has awarded $610,999 in grant funds to two consortia (All Indian Pueblo Council and the Inter-Tribal Environmental Council of Oklahoma) to survey these USTs.

There is no funding source for UST upgrading or compliance.

Ysleta del Sur gas station


Citizen Potawatomi convenience store and gas station

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# WATER PROGRAMS

"If you kill the water, you kill the life that depends on it,

your own included. That's Natural law.

It's also common sense."

Oren R. Lyons

Chief of the Turtle Clan, Onondaga Nation

## Drinking Water Quality

The Safe Drinking Water Act (SDWA) is the federal law regulating the quality of finished drinking water from a public water system (PWS). The purpose of the SDWA is to ensure the drinking water supplied to the public is safe for human consumption. EPA has the responsibility of setting national drinking water standards which must be met by all water supplied to the public. EPA also has the authority and responsibility to implement the SDWA and its associated regulations on distinct Indian Reservations.

All public water systems in Indian Country, regardless of ownership, must comply with these requirements. EPA retains the primary enforcement responsibility for these PWS until a Tribe has applied for, and been approved for, primacy under the SDWA Public Water Supply Supervision program. Currently, none of the Tribes in Region 6 have the resources, the number of public water systems, the regulatory process, or the desire to seek this program responsibility.

**Public Water Systems in Indian Country**

Tribal water systems are more than twice as likely to lack required monitoring as non-tribal systems. Also, tribal water systems are more likely to be in violation of health-based bacteriological standards than non-tribal water systems of the same size.

Nationally, there are over 1,000 tribal water systems serving over 500,000 people.

In Region 6, there are 91 distinct tribal public water systems (PWS) serving approximately 64,000 persons in Indian Country. The regulatory oversight varies greatly for these drinking water systems.

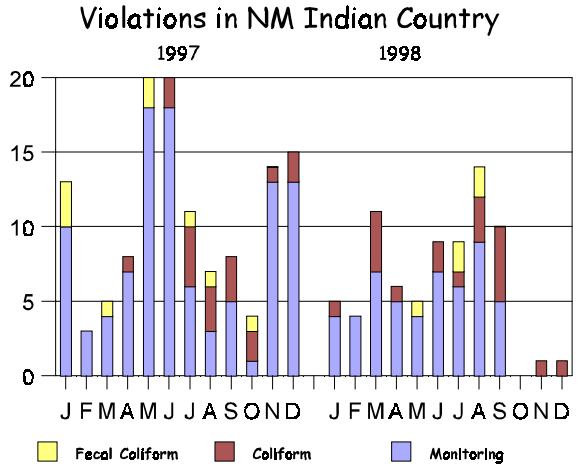

Otoe-Missouria Tribe water tower

Of the 91 tribal systems in the Region, 68 are directly regulated and/or monitored by EPA; the other 23 are monitored by state agencies. The EPA-monitored systems are primarily located in New Mexico.

All the Tribes and Pueblos in New Mexico have drinking water systems, while only 17 of the 37 Oklahoma Tribes, 2 of the 3 Tribes in Texas, and none of the 4 Tribes of Louisiana have distinct water systems.

Unlike much of Indian Country in New Mexico and Texas, most members and tribal facilities in Oklahoma and Louisiana receive their drinking water from local municipalities. Since many of these PWS are monitored and regulated by state agencies, some Tribes are required to pay fees to the state that provides this service. These differences are the reason New Mexico Indian Country is grouped separately in the following sections and charts.

The quality of the drinking water provided by the 66 tribal systems in New Mexico Indian Country is not in step with the national average. Nationally, less than 6% of all public water systems reported bacterio-logical (coliform) violations, while the violation rate for water systems in Indian Country was over 28%. Potential health-based concerns include viruses (hepatitis), pathogenic bacteria and protozoa (e.g., cryptosporidium and giardia).




As the chart above indicates, during 1997 and 1998, there were many instances when total coliform, as well as fecal coliform, bacteria were detected in water samples in New Mexico Indian Country.

Only 19 of the 41 New Mexico tribal community water systems (or 46%) had no water quality or monitoring violations. Some of the violations included fecal coliform contamination which called for "boil water advisories" to combat acute public health threats.

In addition, of the 22 violating systems, 17 of these same systems and 31 other systems failed to monitor their water quality in one or more months, and were not able to document the quality of the drinking water. These violations involve 53 tribal systems or an 81% violation rate, a trend that will require a great deal of effort by EPA and tribal officials to reverse. EPA has provided significant support to the Tribes in the form of Tribal set-aside grants, water quality analyses, technical and management assistance, operator training, and direct technical consultation.

Two New Mexico Tribes have established a good compliance record for safe drinking water. The Pueblo of Taos has consistently provided high quality drinking water to its customers for three consecutive years--1996, 1997, and 1998. The Pueblo of Cochiti has provided high quality drinking water, as exhibited by full drinking water regulatory compliance for two consecutive years--1997 and 1998.

Tribal owned and operated drinking water systems in Oklahoma and Texas are generally in compliance. The only violations noted for the Oklahoma systems involved monitoring.

On July 1, all community public water systems were required to provide a Consumer Confidence Report (CCR) to the public conveying the status of drinking water facilities and water quality during 1999. For the Region 6 Tribal water systems, CCRs were submitted by Isleta Pueblo, Santa Ana Pueblo, Tesuque Pueblo, and Alabama Coushatta Tribe. Seven Pueblos failed to submit 1998 CCRs: Jemez, Picuris, Sandia, San Ildefonso, Santo Domingo, Santa Clara and Zuni.

Although many Tribes have experienced violations and many important issues need to be addressed, the Tribes continue to make strides in improving the availability and quality of drinking water. These efforts are being supported by EPA through technical assistance providers for training, circuit riders, capacity development support, and

other consultation services. In addition, the implementation of tribal water system infrastructure grants are geared to address major compliance and public health problems and will be discussed in a later section.

## Source Water Protection

Source Water Protection applies to a number of Safe Drinking Water Act initiatives that are specifically designed to protect "sources of drinking water" both surface and ground water. This program is an expansion of the Wellhead Protection program which was initiated under the 1986 Amendments to the Safe Drinking Water Act.

Lake on Jicarilla Apache Reservation

Groundwater is used by more than half of all Americans for drinking purposes, with rural areas depending on groundwater for 95% of their drinking water. Indian Lands, which are mostly located in rural areas in Region 6, parallel other rural areas in their reliance on groundwater for nearly all of their water supply.

One way communities can protect ground water is by incorporating wellhead protection activities into land use management efforts. Wellhead protection is the delineation of boundaries around a public water supply well or well field, and then managing activities within those boundaries to prevent pollutants from getting to the groundwater that contributes to the well. The delineation boundaries are also called a wellhead protection area (WHPA).

Activities which may be managed or limited within a WHPA are any land or subterranean disposal of waste or application of chemicals from industrial, residential, or agricultural sources. This includes dumps, septic systems, and injection wells.

WHPA boundaries are based on hydro geological factors, like time-of-travel of ground water flowing to the well, aquifer boundaries, the degree to which the aquifer is confined, and pumping rates. All of these hydro geological characteristics have a direct effect on the likelihood, extent, and movement of contamination.

There are 10 Tribes in Region 6 who have either initiated a wellhead protection program or are currently developing, with EPA support, a source water protection program for the water systems on their tribal lands.

## Underground Injection Control Program

The Underground Injection Control (UIC) program was established under the Safe Drinking Water Act to protect the potable groundwater supplies. The UIC program regulates the subsurface injection of wastewater below, into, and above underground sources of drinking water (USDW). USDW is defined as groundwater that contains less than 10,000 mg/l total dissolved solids.

In Region 6, injection wells on Indian lands are generally regulated by EPA. The only exception to this is Class II injection wells located on land of the Five Civilized Tribes in Oklahoma (Cherokee, Chickasaw, Choctaw,

Muscogee (Creek), and Seminole Nations). The Oklahoma Corporation Commission regulates those injection wells.

The UIC program regulates approximately 2,700 injection wells on Indian lands in Region 6, of which 2,600 are on the Osage Mineral Reserve. Five inspectors from the Osage Tribe conduct in excess of 2,800 injection well inspections per year. Over 90% of the inspected wells are in compliance.

The Osage Tribe has received grants under the Safe Drinking Water Act for the past 9 years for their UIC program, and received a total of $648,047 for 1997 and 1998.

## SDWA Tribal Set-Aside Grants

The Safe Drinking Water Act §1452 establishes a Tribal Set-Aside Grant that allows EPA to use 1.5% of the funds appropriated for the Drinking Water State Revolving Fund for grants to Tribes.

Nationally, $19.1 million was set-aside for fiscal years 1997, 1998 and 1999 to make direct grants for infrastructure improvements to public drinking water systems either owned by Tribes or to those systems serving Tribal members.

Region 6 received a total allocation of $2.9 million from fiscal years 1997, 1998, and 1999 for the initial phase of the program. Nineteen Tribes requested support from this program through Notice of Intent Letters. With the available funding, the Region funded 11 projects (Acoma, Iowa, Jemez, Kickapoo-OK, Mescalero, Nambe, Picuris, San Juan, Santa Clara, Taos, and Zuni) and has committed to fund projects for four other Tribes (Santa Ana, Santo Domingo, Seneca-Cayuga, and Tesuque). Additional projects will be addressed in later funding cycles.

Wastewater treatment lagoon at San Felipe Pueblo

## Water Quality/Clean Water Act

Although Federal laws dealing with water quality have existed for almost 50 years, the current era of water pollution control began in 1972 with the comprehensive amendments to the Federal Water Pollution Control Act, the formal name of the Clean Water Act.

The goal of the CWA "is to restore and maintain the chemical, physical, and biological integrity of the Nation's water," primarily through a prohibition against discharging pollution in the waters of the United States.

While not comprehensive (certain sources of pollution are not directly regulated), the CWA does deal with a complex variety of matters concerning water pollution, including: grants for construction projects, research and study; development of water pollution control programs; and permitting and regulations of discharges, and establishing water quality standards.

In 1987, the enactment of §518 of the Clean Water Act expanded the State/Federal relationship to include a Tribal/Federal relationship. Tribes were then eligible to obtain grants to develop water quality programs, establish water quality standards, issue National Pollution Discharge Elimination System (NPDES) permits, and provide certifications under CWA §401.

## Water Quality Management Program

§106 of the Clean Water Act provides financial assistance to eligible Tribes for the assessment, prevention, reduction, and elimination of water pollution. Tribes can use §106 funds to develop and adopt water quality standards for surface waters on Tribal lands, to develop a nonpoint source pollution control program, to conduct water quality monitoring and assessments, and for watershed/wetlands protection planning. Up to 3% of funds available under this program are set aside for Tribes. See the chart on page 28 for more details.

Discharge point near the Rio Grande

Eligible Tribes may receive up to $60,000 from the base allocation provided that performance on previous assistance agreements is satisfactory. Depending on available funding, Tribes may be eligible to receive up to $100,000 of Federal funding under the §106 program.

Typical projects funded are for: water quality planning and assessments; development of water quality standards; ambient monitoring; development of total maximum daily loads; permit issuance; ground water and wetland protection; and nonpoint source activities including the development of a nonpoint source assessment and management plan.

## Water Quality Standards

Water Quality Standards (WQS) are laws or regulations that States and authorized Tribes adopt to enhance water quality and to protect public health and welfare.

WQS consist of three elements:

- Designated uses;
- Water quality criteria necessary to protect the uses; and
- An antidegradation policy.

Water quality standards apply to surface waters of the United States, including wetlands and estuaries.

The Pueblos of Acoma, Isleta, Nambe, Picuris, Pojoaque, Sandia, San Juan, Santa Clara and Tesuque have adopted standards and several other Tribes have prepared draft standards. EPA is considering publishing core WQS for Indian Country that is not covered by EPA-approved standards. This action would not prevent Tribes from developing their own WQS in the future.

The Pueblos of San Juan, Pojoaque and Picuris have completed the required triennial review and revisions to their WQS.

## Nonpoint Source Pollution Control

Nonpoint sources of water pollution are multiple, diffuse sources of pollution. For example, nonpoint sources of water pollution may include runoff from:

- urban areas,
- agriculture, animal feedlots,
- mining, forestry and
- roads/highways.

EPA provides funding to eligible Tribes under CWA §319 in order to control nonpoint source pollution on Tribal lands. Until FY 1999, §319 funds for Tribes were limited to 1/3 of 1% of the national §319 allocation (about $600,000 nationally in FY 1998). In FY 1999, that cap was lifted and $2.5 million were made available to Tribes. Base amounts of $30,000 were provided to eligible Tribes and the remainder was distributed competi-tively for projects up to $150,000 each.

Presently, three Tribes in Region 6 eligible to apply for §319 funds are: Jicarilla Apache Tribe, Mescalero Apache Tribe, and the Pueblo of Acoma.

## Watershed/Water Quality Protection

EPA provides funding to Tribes under the CWA §104(b)(3) for projects dealing with watershed/water quality protection.

Many of the activities eligible under the §106 program are also eligible for funding under this program. These activities may include developing a water quality monitoring program, developing a nonpoint source pollution control program and environmental education.

Funding under this program is extremely limited (approximately $140,000 in FY 2000) and is distributed via a competitive process. With this funding, Region 6 can fund 2 to 4 Tribes each year.

## National Pollutants Discharge Elimination System

The CWA generally prohibits discharging any pollutants into the waters of the United States, except in compliance with certain sections of the statute. One of the primary exceptions to the prohibition is the NPDES program found in CWA §402. Every discharge to waters, including those from tribal facilities, must be permitted under this program.

Arkansas, Louisiana, Oklahoma and Texas have assumed the NPDES program for the facilities within the States' jurisdiction. EPA retains NPDES authority for all facilities on tribal lands in Region 6 and for facilities within their boundaries, including the Alabama-Coushatta Tribe, the Chitimacha Tribe, the Jicarilla Apache Tribe, and the Pueblos of Cochiti, Pojoaque, Sandia, and Santa Clara.

Discharges on tribal lands are also covered, as appropriate, by general permits, including NPDES stormwater discharges during construction activities, multi-sector general permits and discharges from concentrated animal feeding operations.

Citizens near Questa, New Mexico, expressed some technical disagreements with the approach for capturing seeps at the mine during the Public Hearing on the Molycorp NPDES permit. The environmental group, Amigos Bravos, and the Taos Pueblo are concerned about the site.

At this time, there are no permitted facilities located on trust lands in Oklahoma. No Tribes are authorized for the NPDES Program.

## Wetlands Protection and Restoration

An integral part of the CWA is the restoration and maintenance of the nation's wetlands. EPA, in partnership with tribal governments, is responsible for protecting wetland resources. The major Federal regulatory tool for this is §404 of the CWA, which is jointly administered by the U.S. Army Corps of Engineers and EPA. Section 404 establishes a permit program to regulate the discharge of dredged or fill material into waters of the United States, including most wetlands.

Constructed wetlands on Sandia Pueblo

Waters of the United States include lakes, streams, rivers, wetlands and coastal waters. Wetlands are areas which are saturated or flooded for varying periods of time during the growing season. Because of the presence of water, there is a prevalence of aquatic or hydrophytic vegetation, such as that found in swamps, marshes, bogs and similar areas. §518 authorizes EPA to approve Tribal §404 permit programs in substantially the same manner as the Agency approves State programs. To be eligible to assume the §404 permit authority, a Tribe must have EPA-approved water quality standards as well as a permit program.

EPA also administers a grant program under the Clean Water Act §104(b)(3), which funds activities for the protection and restoration of wetlands. This program is not part of the §404 permits program. A number of Region 6 Tribes have received the wetlands funding.

Santa Ana Pueblo has completed a thorough investigation on the conditions of the Rio Grande Cottonwood Forest (Bosque). This riparian forest is dying because of several factors associated with flood control and river channel maintenance activities occurring over the past 50 years. The activities have altered the natural processes to the point where native riparian species are no longer regenerating. The forest is now being overrun by non-native salt cedar and Russian olive trees.

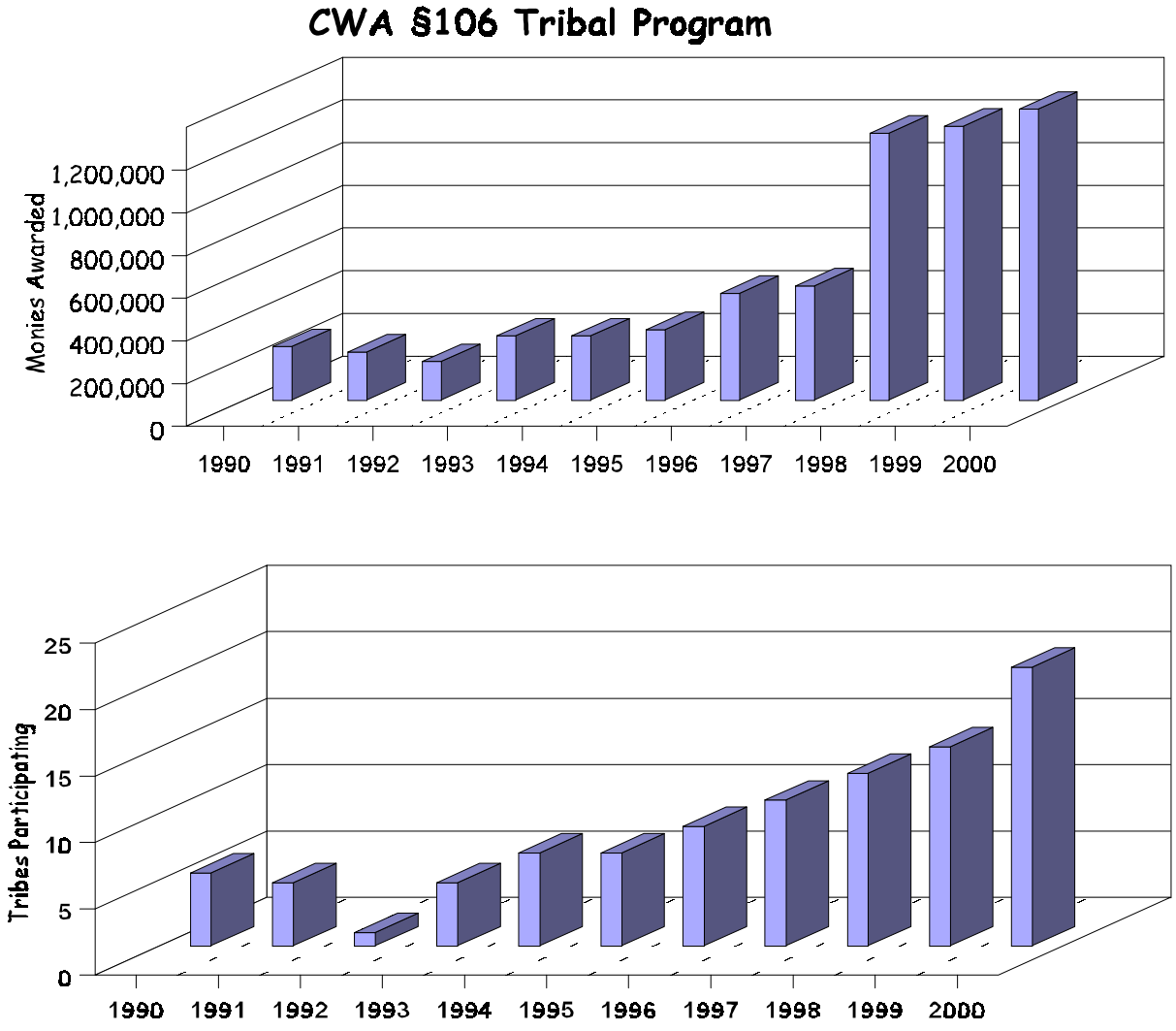
In FY 1999 and 2000, approximately 100 projects nationally were selected for funding under the Five Star Restoration Challenge Grants program. The youth from the Caddo Tribe will replant about 80 acres of wetlands and the Muscogee (Creek) Nation will restore a wetland and establish a learning center in both English and Creek.

## Clean Water Act Tribal Set-Aside

The CWA §518(c) establishes a Tribal Set-Aside Grant Program. One-half of one percent of the funds available under §207 of the CWA are reserved each year for the development of wastewater management plans and the construction of sewage treatment works that serve Tribes.

Typical projects funded are for: interceptor sewers, wastewater treatment facilities (conventional or alternative), infiltration/ inflow correction, collector sewers, major sewer rehabilitation and on-site systems (e.g., septics).

Grants are awarded according to a national priority listing that is based on three categories of criterion: water quality, public health, and existing level of treatment. The Agency uses the Indian Health Services (IHS) Sanitation Deficiency Survey to identify which projects will receive funding. For FY99 three Region 6 Tribes (Muscogee (Creek), Jicarilla Apache Tribe, and the Pueblo of Taos) received a total of $351,000 under this program.



# TRIBAL PROGRAMS

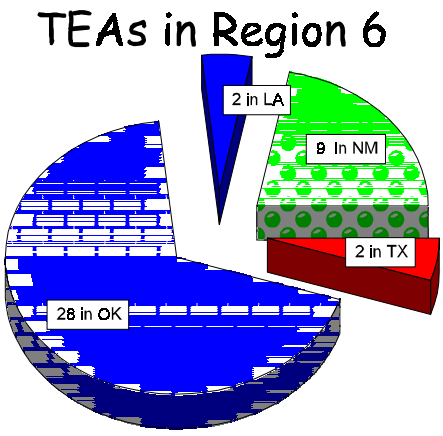
"Our ancestors can no longer speak for themselves.

It is up to us to speak for them."

Wilma Mankiller
former Principal Chief, Cherokee Nation - 1998

# TRIBAL ENVIRONMENTAL AGREEMENTS

Tribal Environmental Agreements (TEAs) document the government-to-government relationship between EPA and the Tribe. The TEAs represent the first formal recognition of this unique relationship and establish the basis to build a comprehensive environmental program, ensure stable, long-term planning and provide commitments for resources to address the environmental needs of the Tribe. The TEAs in Region 6 commit both parties to open and direct communication, multimedia problem solving and strategic funding for the most pressing environmental projects.




Region 6 has signed TEAs with 41 Tribes or 63 percent of our Tribes--15 in FY 97, 15 in FY 98, 10 in FY 99 and 1 in FY 00.

TEAs can be renewed, modified, or cancelled at any time. Over time, EPA Region 6 anticipates including specific goals, targeted funding, and an environmental assessment of the lands within each Tribe's jurisdiction.

Region 6 has signed TEAs with the following Tribes and Pueblos:

| | | | |
|---|---|---|---|
| Acoma Pueblo | 11/18/98 | Modoc Tribe | 8/27/97 |
| Alabama Coushatta Tribes | 4/23/99 | Muscogee (Creek) Nation | 8/27/97 |
| Caddo Indian Tribe | 8/27/97 | Otoe-Missouria Tribe | 8/27/97 |
| Cherokee Nation | 11/12/97 | Pawnee Tribe | 8/27/97 |
| Cheyenne-Arapaho Tribes | 8/27/97 | Peoria Indian Tribe | 5/25/98 |
| Chitimacha Tribe | 11/18/98 | Pojoaque Pueblo | 3/23/99 |
| Choctaw Nation of Oklahoma | 7/08/98 | Ponca Tribe of Indians | 8/27/97 |
| Citizen Potawatomi Nation | 5/24/98 | Quapaw Tribe | 6/11/98 |
| Cochiti Pueblo | 12/31/98 | Sac and Fox Nation | 8/27/97 |
| Comanche Nation | 6/14/00 | San Felipe Pueblo | 11/13/97 |
| Delaware Tribe - West | 4/20/99 | San Juan Pueblo | 6/18/98 |
| Eastern Shawnee Tribe | 9/21/99 | Seminole Nation | 8/27/97 |
| Fort Sill Apache Tribe | 8/27/97 | Taos Pueblo | 11/14/97 |
| Iowa Tribe of Oklahoma | 1/05/98 | Thlopthlocco Tribal Town | 8/27/97 |
| Isleta Pueblo | 2/19/98 | Tonkawa Tribe of Indians | 4/14/98 |
| Kialegee Tribal Town | 9/08/97 | Tunica-Biloxi Tribe | 11/17/97 |
| Kickapoo Traditional Tribe of Texas | 4/23/99 | United Keetoowah Band | 4/14/98 |
| Kickapoo Tribe of Oklahoma | 8/27/97 | Wichita and Affiliated Tribes | 9/20/99 |
| Kiowa Tribe | 10/23/98 | Wyandotte Tribe | 8/27/97 |
| Mescalero Apache Tribe | 8/27/97 | Zuni Pueblo | 11/14/97 |
| Miami Tribe | 1/28/99 | | |

# PROGRAM AUTHORIZATION/IMPLEMENTATION MATRIX

as of April 2000

| Tribe | 106 | 314 | 319 | 303/ 401 | 402 | 404 | PWS | UIC | Air | Pest |
|---|---|---|---|---|---|---|---|---|---|---|
| **New Mexico** | | | | | | | | | | |
| Acoma Pueblo | x | x | x | P | | | | | | P |
| Isleta Pueblo | x | | | x | | | | | | |
| Jicarilla Apache | x | x | x | | | | | | | x |
| Mescalero Apache | x | | P | | | | | | | |
| Nambe Pueblo | x | | | x | | | | | | |
| Picuris Pueblo | x | | | x | | | | | | |
| Pojoaque Pueblo | x | | | x | | | | | | |
| Sandia Pueblo | x | | | x | | | | | | |
| San Ildefonso Pueblo | x | | | | | | | | | |
| San Juan Pueblo | x | | | x | | | | | | |
| Santa Ana Pueblo | x | | | | | | | | | |
| Santa Clara Pueblo | x | | | x | | | | | | |
| Taos Pueblo | x | | | | | | | | | |
| Tesuque Pueblo | x | | | x | | | | | | |
| **Oklahoma** | | | | | | | | | | |
| Caddo Tribe | | | | | | | | | | x |
| Comanche Nation | x | | | | | | | | | |
| Iowa Tribe | | | | | | | | | | x |
| Kaw Nation | x | | | | | | | | | |
| Kickapoo Tribe | x | | | | | | | | | |
| Kiowa Tribe | | | | | | | | | | x |
| Miami Tribe | x | | | | | | | | | x |
| Osage Tribe | | | | | | | | x | | |
| Otoe-Missouria | P | | | | | | | | | P |
| Pawnee Tribe | x | | | P | | | | | | P |
| Quapaw Tribe | x | | | | | | | | | |
| Sac and Fox Nation | x | | | | | | | | | |
| Seneca-Cayuga | P | | | | | | | | | P |
| Wichita & Affiliated | x | | | | | | | | | |
| Wyandotte Tribe | x | | | | | | | | | |

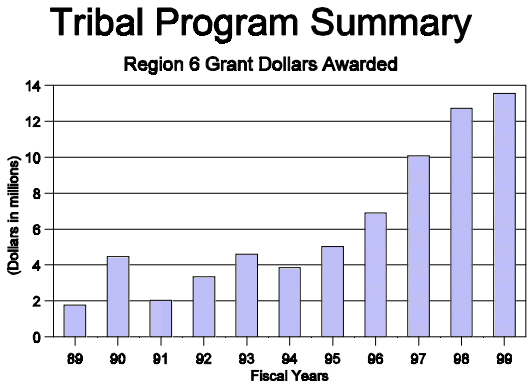
Legend:

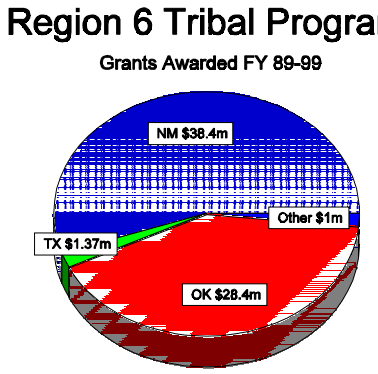
| | |
|---|---|
| 106 | Clean Water Act §106, Water Quality Management Grants Program |
| 314 | Clean Water Act §314, Clean Lakes Grant Program |
| 319 | Clean Water Act §319, Nonpoint Source Grant Program |
| 303 | Clean Water Act §303, Water Quality Standards Program |
| 402 | Clean Water Act §402, National Pollution Discharge Elimination System (NPDES) |
| 404 | Clean Water Act §404, Wetlands Protection Program |
| PWS | Safe Drinking Water Act, Public Water Supply Supervision (PWSS) Program |
| UIC | Safe Drinking Water Act, Underground Injection Control Program |
| Pest | Pesticide Cooperative Agreements |
| x | Tribe has been determined eligible for Treatment in the Same Manner as a State, or has had program approval where TAS does not apply under the specified program. |
| P | Applications submitted to EPA Region 6 are pending an EPA determination. |

# OVERALL FUNDING ANALYSIS

Overall funding for the 65 Tribes in Region 6 has increased dramatically from $1.7 million in FY 89 to $13.5 million in FY 99. Cumulative grant awards from FY 89 to FY 99 total $69.3 million.

As of October 2000, 61 of the 65 Tribes and Pueblos have received grant awards.

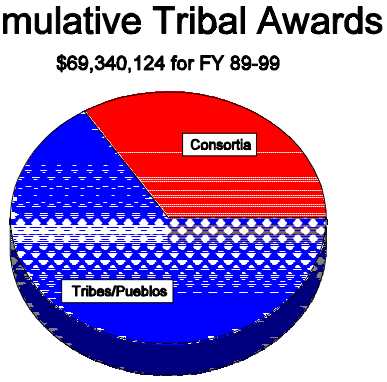


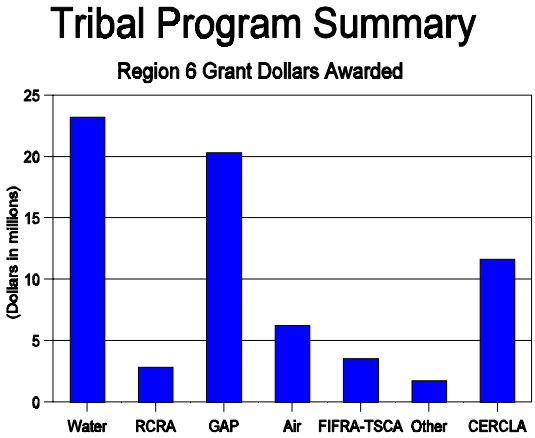




Tribes in New Mexico comprise 32 percent of the Region's Tribes and have received 55 percent of the funding ($38,442,423).

The Oklahoma Tribes comprise 57 percent and received 41 percent of the funding ($28,414,119).

A portion of the funding for the tribal program was awarded to inter-tribal consortia as indicated in this chart. The consortia provide a wide range of environmental services and technical assistance to the member Tribes.




Grant awards for the tribal environmental programs typically begin with the General Assistance Program (GAP) for capacity building, followed by water and air activities. Superfund (CERCLA) grants have typically been awarded to two of the consortia (All Indian Pueblo Council and Inter-Tribal Environmental Council).

"Once in his life a man ought to concentrate his mind upon the remembered earth.

He ought to imagine that he touches it with his hands at every season and

listens to the sounds that are made upon it. He ought to imagine

the creatures there and all the faintest motions of the wind.

He ought to recollect the glare of noon and all the colors

of the dawn and dusk."

N. Scott Momaday
Kiowa/Cherokee Pulitzer Prize novelist

## MAJOR LAWS ADMINISTERED BY EPA

| Statute | Provisions |
|---|---|
| Asbestos School Hazard Abatement Act and Asbestos Hazard Emergency Response | Authorizes EPA to establish a comprehensive regulatory framework for controlling asbestos hazards in schools. |
| Clean Air Act | Authorizes EPA to set emissions standards to limit the release of criteria pollutants and hazardous air pollutants. |
| Clean Water Act | Requires EPA to establish a list of water pollutants and set standards. |
| Comprehensive Environmental Response, Compensation, and Liability Act | Requires EPA to designate hazardous substances that can present substantial danger and authorizes the cleanup of contaminated sites. |
| Emergency Planning and Community Right-to-Know Act | Requires States to develop programs for responding to hazardous chemical and releases requires industries to report on the presence and release of certain hazardous substances. |
| Environmental Research, Development, and Demonstration Act | Authorizes all EPA research and development programs. |
| Federal Food, Drug, and Cosmetic Act | Authorizes EPA, in cooperation with FDA, to establish tolerance levels for pesticide residues on food. |
| Federal Insecticide, Fungicide, and Rodenticide Act | Authorizes EPA to register all pesticides, specify the terms and conditions of their use, and remove unreasonable hazardous pesticides from the market place. |
| Marine Protection, Research, and Sanctuaries Act | Regulates ocean dumping of toxic contaminants. |
| National Environmental Education Act | Provides for a program of education on the environment through activities in schools and related educational activities, and to encourage students to pursue careers related to the environment. |
| National Environmental Policy Act | Provides a national policy requiring environmental impact statements describing potentially adverse effects of, and alternatives to, any major Federal action. Established the Council on Environmental Quality. |
| Oil Pollution Act of 1990 | Makes EPA responsible for oil spill prevention, preparedness, response, and enforcement activities associated with non-transportation related onshore oil facilities. |
| Pollution Prevention Act | Provides that pollution should be prevented or reduced at the source, recycled safely when not preventable, treated safely when not preventable or recyclable, or disposed of in a safe manner. |
| Resource Conservation and Recovery Act and Solid Waste Disposal Act | Authorizes EPA to identify hazardous wastes and regulate their generation, transportation, treatment, storage, and disposal. |
| Safe Drinking Water Act | Requires EPA to set drinking water standards to protect public health from hazardous substances. |
| Toxic Substances Control Act | Requires EPA notification of any new chemical prior to its manufacture and authorizes EPA to regulate its production, use, or disposal. |